Rockingham County
Bridge No. 97 on SR 1925 (Worsham Mill Road)
over Wolf Island Creek
Federal Aid Project No. BRZ-1925(2)
W.B.S. No. 38573.1.1
T.I.P. No. B-4803

**INTRODUCTION:** Bridge No. 97 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and is eligible for the Federal-Aid Highway Bridge Program. The location is shown in Figure 1. No substantial environmental impacts are anticipated. The project is classified as a Federal "Categorical Exclusion".

## I. PURPOSE AND NEED STATEMENT

NCDOT Bridge Management Unit records indicate Bridge No. 97 has a sufficiency rating of 22 out of a possible 100 for a new structure. The bridge is considered structurally deficient due to a superstructure rating of 4 out of 9 and a structural appraisal of 2 out of 9 according to Federal Highway Administration (FHWA) standards and is, therefore, eligible for FHWA's Highway Bridge Program.

Bridge No. 97 has a 60-year-old timber substructure that has a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few members are damaged or prematurely deteriorated. However, past a certain degree of deterioration, timber structures become impractical to maintain and upon eligibility are programmed for replacement. Bridge No. 97 is approaching the end of its useful life.

Bridge No. 97 carries 1,047 vehicles per day with 1,300 vehicles per day projected for the future. The substandard deck width, bridge railing and approach guardrail is becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

## II. EXISTING CONDITIONS

The project is located near Ruffin, NC in Rockingham County, over Wolf Island Creek on SR 1925 (Worsham Mill Road) (Figure 1). Development in the area is agricultural in nature.

SR 1925 is classified as a rural minor collector in the Statewide Functional Classification System and it is not a National Highway System Route.

In the vicinity of the bridge, SR 1925 has an 18-foot pavement width with 6-foot unstable shoulders (Figure 3). The roadway grade is in a sag vertical curve through the project area. There is a curve on the northwest approach to the existing bridge, and the alignment is tangent at the southeast end. The roadway is situated approximately 21 feet above the creek bed.